Q-370R1

SVE BULLETIN

SPECIAL VEHICLE ENGINEERING – BODY BUILDERS ADVISORY SERVICE

Website: https://www.fordpro.com/en-us/upfit/bbas/

WHEELBASE MODIFICATION OF FORD TRUCKS EQUIPPED WITH ELECTRONIC STABILITY CONTROL

REVISION	UPDATE	REVISION DATE
Q-370 R1	ADDED SUPER DUTY TO LIST OF MODELS SUPPORTED	01JAN2026
Q-370	INITIAL RELEASE	02FEB2025

MODEL(S) AFFECTED:

2025 – 2026MY F-650 AND F-750 MEDIUM TRUCKS WITH HYDRAULIC BRAKES
2024 – 2026MY E-SERIES CUTAWAYS AND STRIPPED CHASSIS
2023 – 2025MY F53 MOTORHOME STRIPPED CHASSIS
2023 – 2025MY F59 COMMERCIAL STRIPPED CHASSIS
2023 – 2026MY F450/550/600 SUPER DUTY CHASSIS CAB

ISSUE / DESCRIPTION:

The vehicles included in this bulletin all have Electronic Stability Control (ESC) as STANDARD equipment, with an option on some models for ESC delete (please see order guides). Wheelbase modification of a truck equipped with ESC affects vehicle function, which may result in sub-standard performance of the ESC system and/or ESC, Anti-lock Brake or Traction Control faults/lights unless module calibrations are updated as appropriate for the modified wheelbase.

Ford now supports upfitters that modify wheelbases of affected vehicles with ESC with an app in the Ford Diagnosis and Repair System (FDRS) tool that will update ESC calibrations as needed. See the FDRS Wheelbase Configuration Application section below for details on how to use the app. Subsequent stage manufacturers that do not have an FDRS tool can purchase the software license and check for compatible scan tool hardware here, or contact their local Ford Dealership for assistance. *Note: The new FDRS app generally replaces the MyCanic tools that had been previously used for this purpose.*

Modified wheelbase lengths within the ranges provided below are supported by the FDRS Wheelbase Configuration App. Each individual range of wheelbase length provided represents a unique ESC calibration. In most cases, the factory wheelbase and modified wheelbase lengths will be in different ranges and will require use of the FDRS Wheelbase Configuration App to revise the ESC calibration. In cases where the factory wheelbase and modified wheelbase are within the same range, the ESC calibration does not need to be updated.

F-650 – F-750 Medium Trucks with Hydraulic Brakes

- All GVWR
  - 146-163”
  - 164-180”
  - 181-195”
  - 196-208”
  - 209-229”
  - 230-243”
  - 244-257”
  - 258-272”
  - 274-281”

F-450 – F-550 Super Duty

- All GVWR
  - 145-158”
  - 159-171”
  - 172-185”
  - 186-199”
  - 200-212”
  - 213-231”
  - 232-250”
  - 251-267”

F-600 Super Duty

- All GVWR
  - 145-162”
  - 163-180”
  - 181-199”
  - 200-212”
  - 213-231”
  - 232-250”
  - 251-267”

E-Series

- E-350 10,050 - 11.5k GVWR Cutaway
  - 138-151”
  - 152-170”
- E-350 11.5k GVWR Stripped Chassis
  - 138-151”
- E-350 12.5k GVWR Cutaway and Stripped Chassis
  - 152-170”
  - 171-183”
  - 184-201”
  - 202-214”
  - 215-232”
- E-450 All GVWR Cutaway and Stripped Chassis
  - 158-170”
  - 171-183”
  - 184-201”
  - 202-214”
  - 215-232”

F53 – Motorhome (Recreation Vehicle)

- 16k – 18k GVWR
  - 158-170”
  - 171-184”
  - 185-198”
  - 199-216”
  - 217-238”
- 20.5k – 22k GVWR with 19.5” tires
  - 168-184”
  - 196-211”
  - 212-229”
  - 230-252”
- 20.5k – 22k GVWR with 22.5” tires
  - 196-211”
  - 212-229”
  - 230-242”
- 24k – 26k GVWR
  - 212-229”
  - 230-242”
  - 243-260”

F59 – Step Van (Commercial Vehicle):

- 16k – 18k GVWR
  - 158-170”
  - 171-184”
- 19.5k GVWR
  - 158-170”
  - 171-184”
  - 185-198”
  - 199-216”
- 20.5k – 22k GVWR
  - 168-178”
  - 197-208”

If a modified wheelbase length outside of the listed ranges is planned, the vehicle should be ordered with the available ESC Delete option as it will not be supported with proper ESC calibrations.

Whether the FDRS tool is used to update the vehicle calibrations or not, it is the responsibility of the final stage manufacturer to evaluate the completed vehicle to ensure vehicle performance is acceptable to the end customer.

NOTES:

- 2023 – 2026MY Super Duty Vehicles are now supported, but 2023 – 2025MY will require an ABS software update prior to the wheelbase configuration, located in the "SW Updates" tab of FDRS.
- 2025 - 2026MY F-650 and F-750 Medium trucks with Bendix air brakes are not supported for wheelbase modifications.
- Wheelbase modifications on prior model years of affected vehicles will need to continue to follow guidance in the latest versions of SVE Bulletins Q-299 (E-Series, F53 and F59) and Q-345 (F-650 and F-750).
- The chassis wheelbase shall not be modified shorter than the shortest factory wheelbase offered for that series or GVWR
- Vehicles with Lane Departure Warning feature: The chassis wheelbase should not be shortened more than 16 inches from the original wheelbase as the feature performance will be negatively affected.
- Vehicles with Tire Pressure Monitor System (TPMS) feature: Increasing the distance between the TPMS receiver module and either front or rear axle beyond the largest spacing provided by Ford may negatively affect feature performance. The final stage manufacturer is responsible for evaluating TPMS system performance on the completed vehicle.
- Statements of Conformity in the vehicle Incomplete Vehicle Manual may have conditions that are affected by the vehicle wheelbase. Please review the IVM and use the modified wheelbase value to complete assessments where appropriate.
- The General Body Builder Layout Book contains much information regarding wheelbase modifications. A search for the term "wheelbase" within the General BBLB will reveal related content, see the following sections under "Design Recommendations" at a minimum:
    - Fuel System
    - Electrical – sections regarding "Electrical Wiring"
    - Brake System
    - Frame – sections on wheelbase modifications for light and medium vehicles

Refer to the applicable vehicle Body Builder Layout Book for additional guidelines and recommendations. If you have any questions, please contact the Ford Body Builders Advisory Service as shown in the header of this bulletin.

FDRS Wheelbase Configuration Application

This application will be used to update the ABS software and load the correct ESC calibration for the modified vehicle wheelbase.

Open the Ford FDRS tool and connect to the vehicle being modified, then:

1. Select “Toolbox”
2. Select “Programmable Features”
3. Download the latest version of “Wheelbase Configuration”
4. Run “Wheelbase Configuration”
5. Password: “M43WBSTRETCH” (all caps)
6. When prompted, you will need to select the range the modified wheelbase falls into (all values in Inches)

Screen Captures from the FDRS tool are provided below to help visualize the selections.